

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PA133514/PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, Item 5 below.	
International application No. PCT/IB 02/ 02725	International filing date (day/month/year) 11/07/2002	(Earliest) Priority Date (day/month/year) 11/07/2001
Applicant NATIONAL HEALTH LABORATORY SERVICE		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1A

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/02725

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7. G01N33/50 G01N33/569

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CENTERS FOR DISEASE CONTROL (USA): "1997 revised guidelines for performing CD4+ T-cell determinations in persons infected with human immunodeficiency virus (HIV)." MORBIDITY AND MORTALITY WEEKLY REPORT, vol. 46, no. RR-2, 1997, pages I-II, 1-29, XP002237836 ISSN: 0149-2195 the whole document --- -/--	1-24



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

10 April 2003

Date of mailing of the international search report

06/05/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
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Authorized officer

Thumb, W

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/02725

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BRANDO B ET AL: "Cytofluorometric Methods for Assessing Absolute Numbers of Cell Subsets in Blood" CYTOMETRY, ALAN R. LISS, INC, XX, vol. 42, 2000, pages 327-346, XP002197095 ISSN: 0196-4763 abstract page 329, column 2, paragraph 4 -page 332, column 1, paragraph 2	1-24
X	NICHOLSON JANET K A ET AL: "Use of CD45 fluorescence and side-scatter characteristics for gating lymphocytes when using the whole blood lysis procedure and flow cytometry." CYTOMETRY, vol. 26, no. 1, 1996, pages 16-21, XP009009076 ISSN: 0196-4763 page 17, paragraph 4	17-19
Y	the whole document	1-16, 20-24
X	SCHNIZLEIN-BICK CAROL T ET AL: "Evaluation of TruCount absolute-count tubes for determining CD4 and CD8 cell numbers in human immunodeficiency virus-positive adults." CLINICAL AND DIAGNOSTIC LABORATORY. IMMUNOLOGY, vol. 7, no. 3, May 2000 (2000-05), pages 336-343, XP002237837 ISSN: 1071-412X page 337, column 1, paragraph 6 -column 2, paragraph 3	1-24
X	LOKEN M R ET AL: "ESTABLISHING OPTIMAL LYMPHOCYTE GATES FOR IMMUNOPHENOTYPING BY FLOW CYTOMETRY" CYTOMETRY, ALAN LISS, NEW YORK, US, vol. 11, 1990, pages 453-459, XP000770385 ISSN: 0196-4763	17-19
Y	the whole document	1-16, 20-24

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/02725

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BARNETT D ET AL: "Absolute CD4+ T-lymphocyte and CD34+ stem cell counts by single-platform flow cytometry: The way forward." BRITISH JOURNAL OF HAEMATOLOGY, vol. 106, no. 4, 1999, pages 1059-1062, XP002237838 ISSN: 0007-1048 page 1059, column 2, paragraph 3 -page 1060, column 2, paragraph 1 table 2	1-9
X	----- SHERMAN G G ET AL: "CD4T cell enumeration in HIV infection with limited resources" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 222, no. 1-2, 1999, pages 209-217, XP004152442 ISSN: 0022-1759 abstract page 210, column 2, paragraph 1 -page 211, column 2, paragraph 1	1-9, 17-19, 23,24
X	----- US 5 812 419 A (ABOTT LABORATORIES) 22 September 1998 (1998-09-22) column 53, line 38 -column 57, line 46 example 4	1-9,20, 21
X	----- US 5 776 709 A (BECTON DICKINSON AND COMPANY) 7 July 1998 (1998-07-07) column 7, line 58 -column 8, line 37	17-19
Y	column 6, line 30 -column 11, line 7 figures 1-5	1-16, 20-24
X	----- EP 0 470 810 B (BECTON DICKINSON AND COMPANY) 12 February 1992 (1992-02-12) page 6, line 48 -page 7, line 14	17-19
Y	page 5, line 1 - line 24 page 6, line 35 -page 7, line 49	1-16, 20-24
X	----- US 5 945 293 A (COULTER INTERNATIONAL CORP.) 31 August 1999 (1999-08-31) column 24, line 45 -column 31, line 46; table 2	1-9, 17-19
X	----- US 5 064 616 A (BECKTON DICKINSON AND COMPANY) 12 November 1991 (1991-11-12) the whole document	17-19
Y		1-16, 20-24
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/02725

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 896 307 A (WHEELER INTERNATIONAL INC.) 22 July 1975 (1975-07-22) the whole document	1-4,6

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

CLELLAND, Sandra, Luischen
Spoor and Fisher
P.O. Box 41312
2024 Craighall
South Africa**SPOOR & FISHER**

2003 -04- 23

SEEN
MAIL
INPROMA
ENTERED BY

Date of mailing (day/month/year)

10 April 2003 (10.04.03)

Applicant's or agent's file reference

PA133514/PCT

IMPORTANT NOTIFICATION

International application No.

PCT/IB02/02725

International filing date (day/month/year)

11 July 2002 (11.07.02)

1. The following indications appeared on record concerning:

☒ the applicant ☐ the inventor ☐ the agent ☐ the common representative

Name and Address

UNIVERSITY OF WITWATERSRAND
1 Jan Smuts Avenue
2001 Braamfontein
South Africa

State of Nationality

ZA

State of Residence

ZA

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address

State of Nationality

State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

Deletion of applicant in Box 1. UNIVERSITY OF WITWATERSRAND gave all its rights to HEALTH
LABORATORY SERVICES, which is appl. for all states except US.

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned
☐ the International Searching Authority ☒ the elected Offices concerned
☒ the International Preliminary Examining Authority ☒ other: UNIVERSITY OF WITWATERSRANDThe International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Silvie STENDER

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